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# EDITORIAL

# Global Ophthalmology Insights for a Global Pandemic

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THE COVID-19 PANDEMIC HAS ABRUPTLY CHANGED the United States (US) healthcare landscape, straining the system in countless ways. Every medical field has been affected, and each is important for sustaining our response to this crisis. Our experience in global ophthalmology provides useful insights for how our specialty can effectively confront these challenges.

Global health is not simply healthcare happening internationally. Instead, global health and global ophthalmology focus on issues that span borders, often searching for interdisciplinary solutions that are effective in resource-poor conditions. Our emphasis is providing eye care to confront unmet needs, regardless of place. We have been working with local and international partners to develop the best approaches for achieving this in difficult situations. These circumstances are often characterized by resource scarcity, impeded access to care, stretched personnel, and fragmented medical services. These same challenges describe our home communities during the current SARS-CoV-2 outbreak. Lessons from the global ophthalmology community can help us all in this global pandemic.

## MEET PATIENTS WHERE THEY ARE

ONE KEY TENET OF OUR WORK HAS BEEN TO FOCUS ON ELIMinating the barriers that prevent patients from accessing care. As providers, we have the responsibility to cross the distance that separates those who need help from our expertise. Outreaches have been key in reaching the marginalized in rural and urban settings. These efforts bring care to those who would otherwise avoid it or be unable to access it. We organize outreach programs strategically in smaller regional towns and coordinate transportation for patients from even more remote areas. Substantial barriers do remain for these people and their families, but providing diagnoses and treatment closer to their homes is essential to care for the most disenfranchised. In this way we can impact thousands of people otherwise cut off from modern ophthalmology.

In the US, the COVID-19 pandemic has prompted hospitals and clinics to scale back services to urgent and emergent care only. For many patients, where and how to get treatment is now uncertain. This creates analogous barriers to access, making "outreach" efforts important here as well. Video visits and phone calls can act as technologically driven outreaches, eliminating logistics that are particularly difficult at this time. Our experience also suggests that maintaining a presence in less populated areas and in satellite clinics is important. While many people can access virtual portals, not everyone can. Targeting isolated populations is crucial and may involve a rotation of clinics that remain open. As jobless rates soar, lack of insurance and other financial pressures will confront patients with agonizing decisions. The solutions we develop for this pandemic have to ensure that while eye care is appropriately scaled back, it is evenly and equitably available.

## UTILIZE THE MAXIMUM POTENTIAL OF PERSONNEL

IN MANY LOW- AND MIDDLE-INCOME COUNTRIES THE SCARcity of trained eye care professionals is acute. In Ethiopia, there are approximately 2 ophthalmologists for every million people, with a corresponding lack of subspecialists, ophthalmic nurses, and optometrists. This mismatch of patients and providers has created huge backlogs of blindness. Ophthalmologists and their teams by necessity have created systems to help alleviate this scarcity. The Aravind Eye Care System in India is renowned for expanding the scope of practice for its mid-level ophthalmic personnel, thereby supplying quality care to a greater number of people.[1] Fellowship-trained specialists in developing regions continue to provide comprehensive ophthalmic services to their patients in addition to complex subspecialty interventions. The underlying principle is that every team member ought to work to their highest potential, relying on the full breadth of their training.

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Social distancing has necessitated a lean healthcare workforce in the US. In this context, practitioners must maximize their contributions. This could take many forms. Lower clinic volumes create opportunities to train staff on new protocols, machines, and workflows so that individuals have broader skill sets. As ophthalmologists during this remarkable time, we ought to use the full breadth of our training to care for patients with diverse pathologies. By providing comprehensive care to those we see, we can limit personnel, visits, and viral transmission. Systems that successfully overcome a scarcity of expertise maximize the individuals who are available. Rather than contracting, our willingness to help others in need ought to expand to meet this challenge.

## PRIORITIZE CHANGES TO REDUCE AND REUSE

WHERE EYE CARE SYSTEMS ARE NASCENT, ENTIRE HEALTH systems are usually spread thin. Excess demand is often acute for equipment and consumables. These constraints have inspired critical appraisals of how resources are used, which are then followed by innovative changes. Surgical gloves provide an illustrative example. Given scarcity, protocols have been developed to use isopropyl alcohol or chlorhexidine to clean gloves multiple times rather than replacing after each case. The safety of such changes must be validated, and the data show no increase in infection rates.[2,3] Beyond particular shortages, a mindset of avoiding single-use resources and minimizing waste is common in the global ophthalmology community. Reducing the clinical footprint without compromising quality or safety has allowed physicians to treat more patients while working within the scarcity of the system.

The current availability and distribution of personal protective equipment highlight these issues for the US. Even if one's own supplies are ample, we must be cognizant of our role within the larger system that is experiencing unprecedented stresses. The first priority continues to be protecting ourselves and our patients, but we should approach this intelligently and generously. Now is the time to think carefully about the resources that go into our work and to streamline where we are able.

## THINK CRITICALLY ABOUT FAIRLY ALLOCATING SCARCE CARE

IN DEVELOPING EYE CARE SYSTEMS, PHYSICIANS FACE myriad difficult decisions. The number of patients overwhelms the capacity, meaning that deciding who receives treatment cannot simply be a question of diagnosis. Determining how to allocate care is agonizing but necessary. Though undoubtedly "visually significant," a 20/200 cataract may not reach the threshold for intervention at a surgical outreach. Plentiful cataracts causing hand motion or count fingers vision are appropriately given priority. We are not comfortable with this reality and are working to expand the quality and availability of services. Nevertheless, explicitly deciding how to distribute a scarce resource recognizes a reality and maximizes the effect of our interventions.

In the US, rationing has been prominently discussed in terms of ventilator distribution, but difficult decisions about allocating care are being made more widely. The infectious risk inherent in any interaction has to be outweighed by its benefit. Accordingly, the threshold for treating—or even seeing—a patient has changed abruptly. This recalibration should ensure that care remains available for those with the greatest need, though it necessarily involves delaying care for others. In such unique circumstances, it is critical to explicitly and equitably determine which services are offered or postponed. Making such choices is difficult in the moment and on an individual basis. Instead, these decisions are most effective when they are made beforehand and rely on objective measures. The American Academy of Ophthalmology and individual societies have offered guidance on what may qualify as urgent or emergent,[4] but individual providers and practices are left to decide. Surgical decisions implicate our medicine and anesthesia colleagues and are therefore particularly crucial. Only justifiable, objective determinations of which cases continue will maintain trust and preserve our ability to treat those who urgently need our expertise. The broader context of this pandemic demands consistency from the ophthalmology community. In this way, we can maximize our impact.

The circumstances of this pandemic are unprecedented, but our global community does have experience that is applicable. Though the impact of COVID-19 has been uneven and is rapidly changing, these insights can help unify our response and preserve vision. Now is not the time to narrow our perspective, focusing inward and excluding others who need our help. Such a response would ignore how our actions fit within the larger system and either support or erode healthcare more broadly in this extraordinary time. In global ophthalmology, a broad enough perspective to overcome such problems has been developed over years. We hope it provides some guidance to us all for the way forward.

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